Description of the Modules

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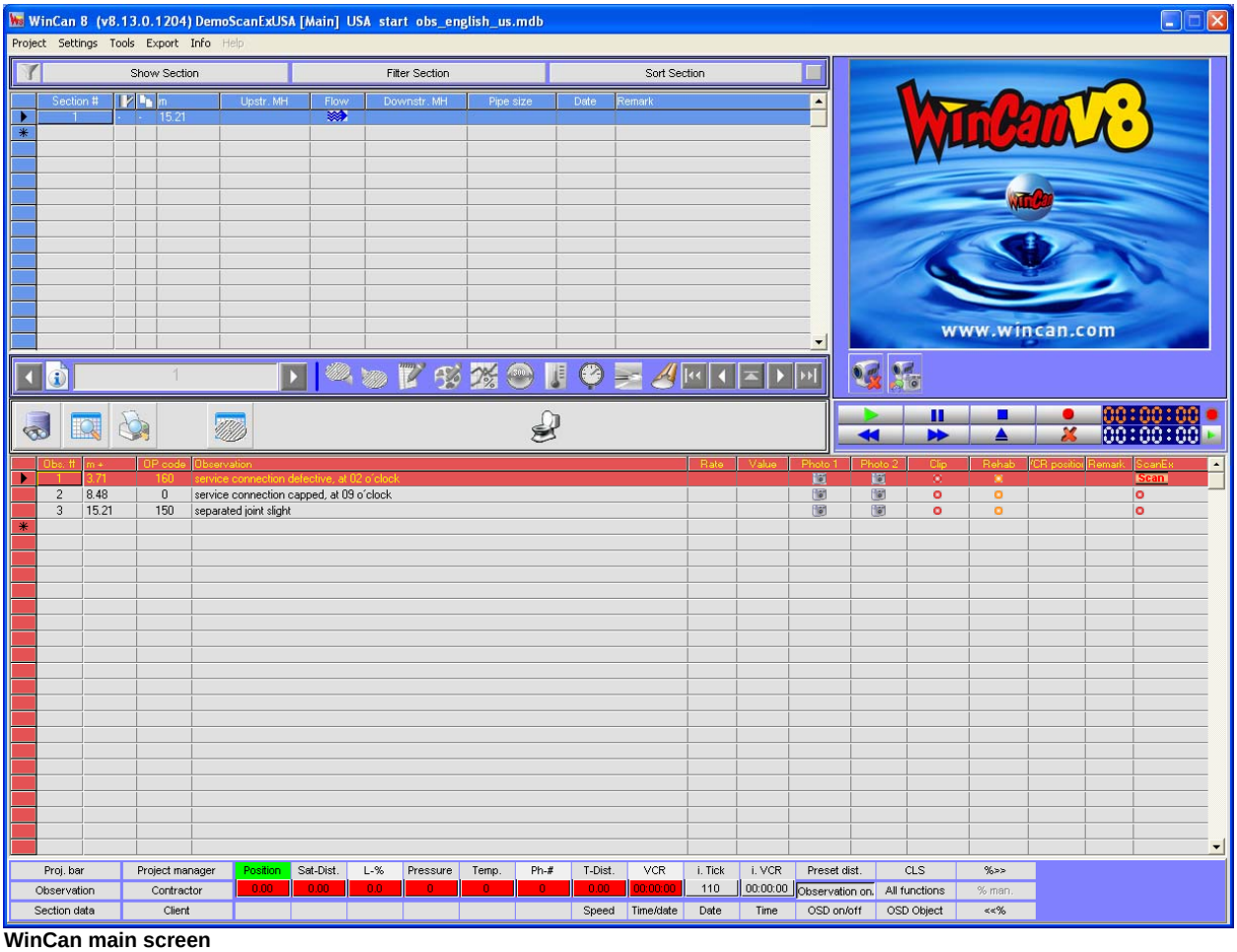
Module 1 WinCan Entry

Basic functionality

- Entry and documentation of project information, sewer pipe section data and observations incl. :
- National language(s) and national standards.
- Two inspections per sewer pipe section.
- One optional Import/Export Interface.
- Viewer Export and Mediadistribution.
- Live Video. Entry of individual images and video clips.
- Configurable entry fields.



WinCan main screen

Requirements

Operating system:	Windows XP, Service Pack 2
Processor:	from 3.0GHz, RAM: 1GB
Screen resolution:	At least 1024x768 pixels and 16-bit colors

WinCan Entry, Supported Video Hardware

Manufacture	Type
Vitec für CDLAB	VM4-C7
Vitec für CDLAB	VM2-CDL
CDLAB	WinCanMobileCap 124
Optibase	Optibase 100SX
Optibase	Optibase 200SX
ATI (Asus)	AX800: ATI Rage Theater Video
AverMedia	AVerTV USB2.0
Canopus	ADVC
Canopus	ADVC55
ImagingSource	DFG/1394-1
MSI(Nvidia)	GeForce FX 5950 Ultra
MSI(Nvidia)	NX6600-VTD256
Pinnacle	PCTV MediaCenter 100e
Pinnacle	PCTV Analog Pro USB
Matrox	Marvel e450TV

Module 2 WinCan Viewer Export & Mediadistribution

The **“WinCan Viewer Export”** program is used for preparing sewer inspection data for WinCan Viewer. WinCan Viewer is a data viewing program that does not require a license and is thus a free-of-charge version for reproducing sewer inspections in digital form (usually on CD or DVD). The inspection data can be viewed and printed.

WinCan Viewer export only functions with **WinCan-generated databases**. No formats from other providers are supported.

The **“WinCan MediaDistribution”** program is used for structured archiving and forwarding of large WinCan projects.

Projects can be distributed between several different forms of data media using WinCan MediaDistribution. The type of data media can be selected from an existing list.

After the project has been distributed, the data then only needs to be stored on the desired data media. The program creates a separate data folder for each form of data media required.

Requirements

Operating system:	Windows XP Service Pack 2
	Microsoft .NET-Framework 1.1 / 2.0 (is installed automatically)
	Media Player 9 or a higher version
	Internet Explorer 6.0 or a higher version
WinCan module:	WinCan Entry v8

Module 3 WinCan Entry MS-SQL or Oracle network license

Distributed installations

WinCan Entry can be supplied with an individual license or a network license. For the network version, a central dongle is installed on a server.Network licenses are available in multiples of five and different license modules are possible, e.g. WinCan Entry 5 users, of which there are 3 users with the reportgenerator and 2 users with the GIS connection, etc.

Requirements

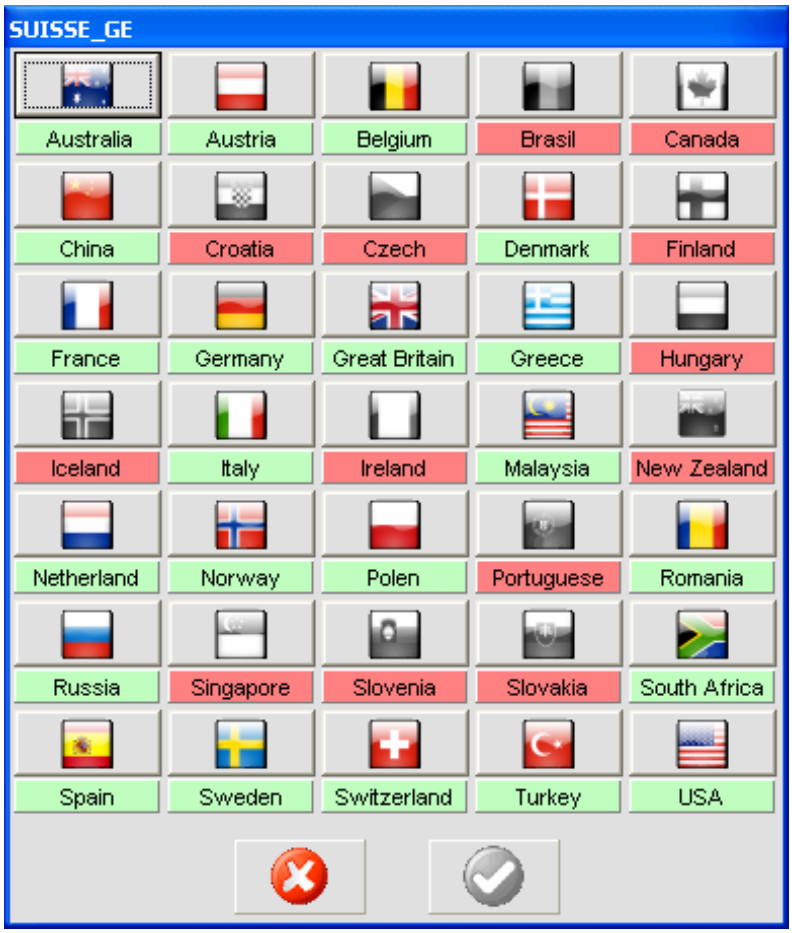
Operating system:	Windows XP, Service Pack 2
Software:	Min. 1 server license
	+ Number of user licenses

Module 4 Languages

All the languages and exports required for the relevant country are contained in WinCan Entry as standard.

Further languages can be incorporated in addition.

Currently available:



Requirement

WinCan module: WinCan Entry v8

Module 5 Data entry for multiple inspections

An unlimited number of inspections of the same sewer pipe sections and manholes in order to document changes over a longer period.

Requirement

WinCan module:	WinCan Entry v8
	WinCan data entry for multiple inspections

Module 6 Data entry for satellite cameras

House connection sewer pipe sections can be investigated using satellite inspections. As for the main sewer, it is also possible here to record images and video clips.

Special graphical report printouts to document the main and side sewers.

If the function is installed and supported by the camera system, WinCan switches automatically to the associated meter counter and video input for investigating a house connection.

Requirement

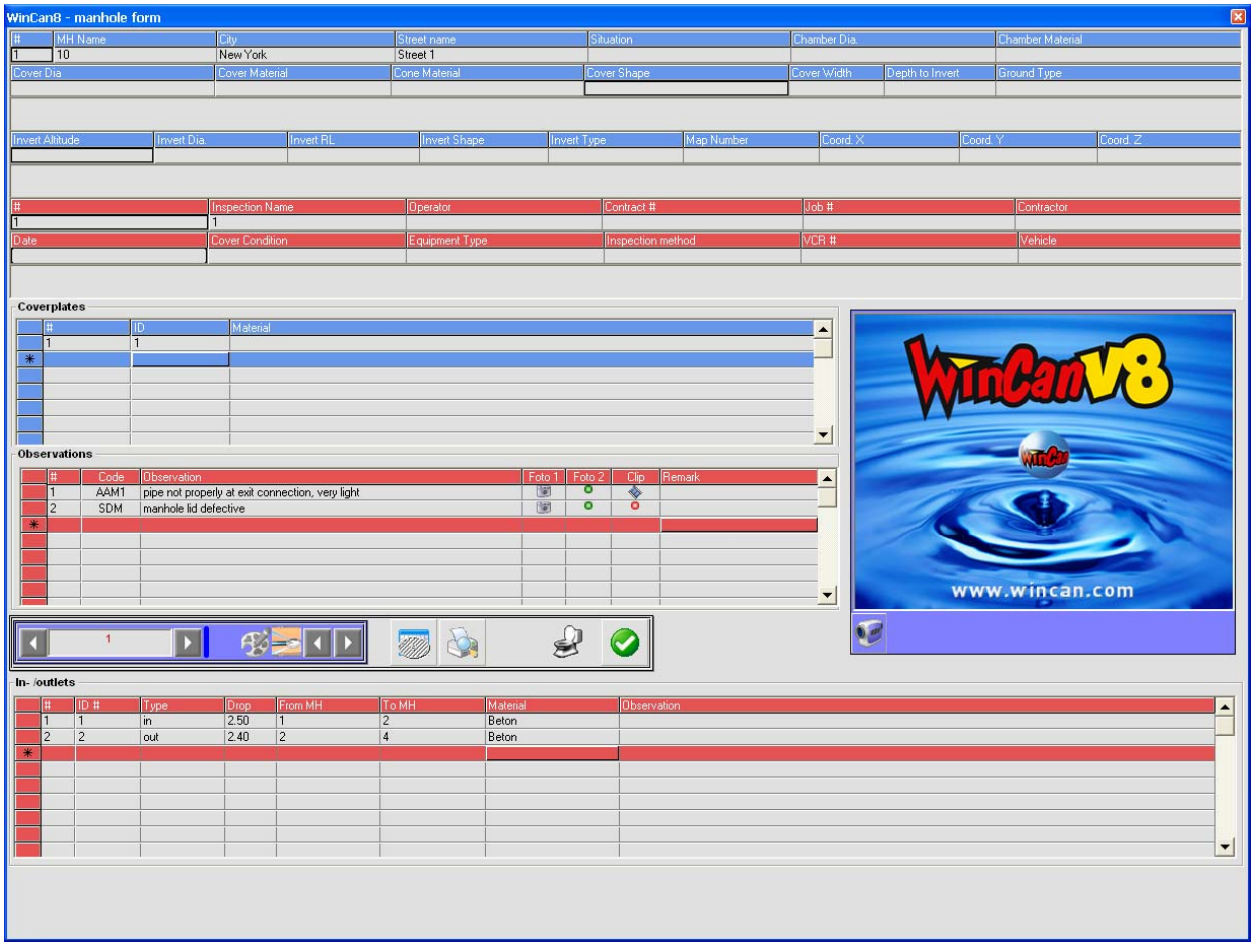
WinCan module:	WinCan Entry v8
	WinCan data entry for satellite cameras

Module 7 Manhole report including drawing program

The entry screen is adapted to meet the Standards of the country concerned.

Images and video clips can also be recorded in addition to text information.

The integrated drawing program (WinCanDraw) can be used for the manual or semi-automated production of manhole sketches.



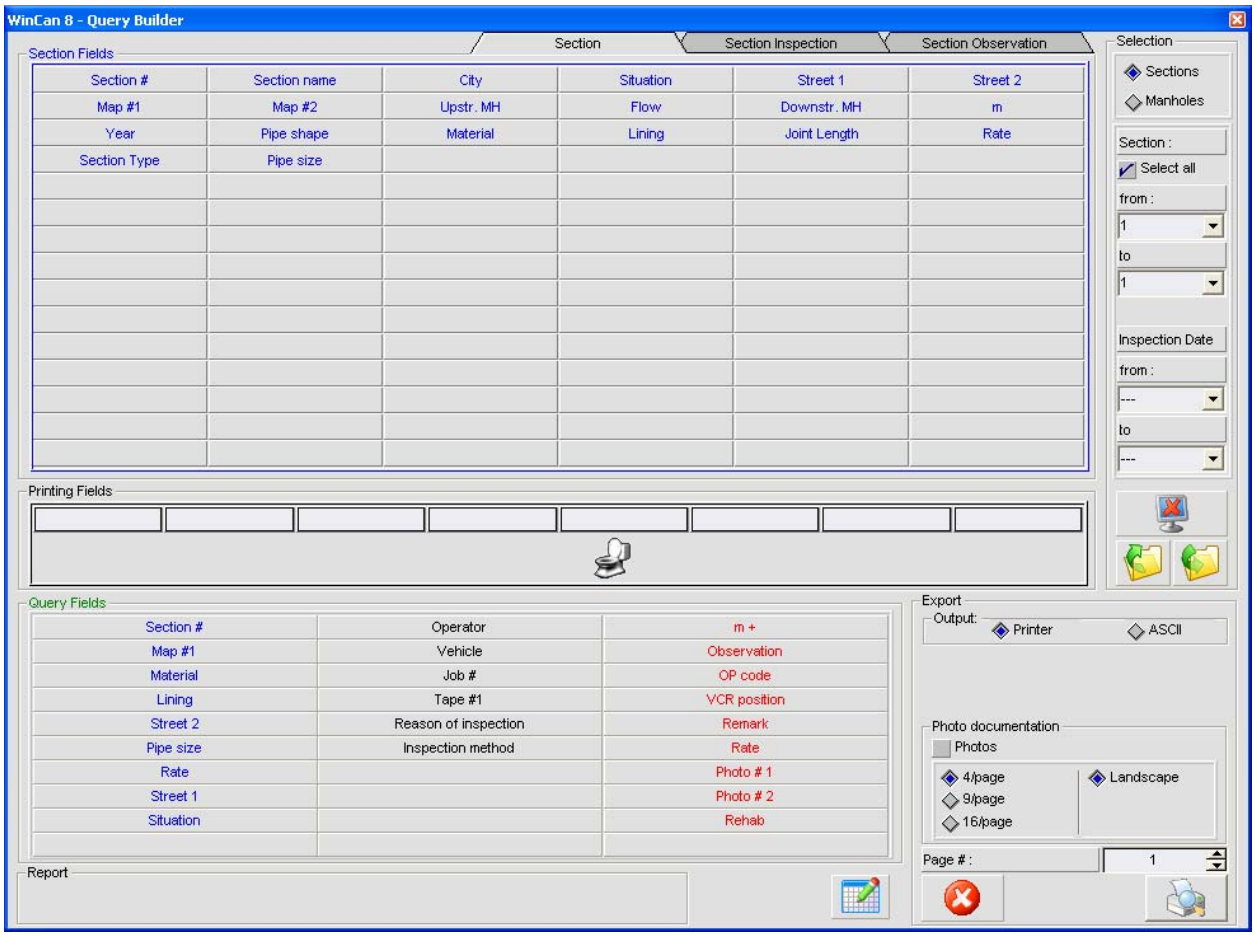
The entry screen for a manhole reports

Requirement

WinCan module:	WinCan Entry v8
	WinCan Manhole report

Module 8 Reportgenerator

Allows freely definable database queries and analyses via an easy-to-use interface (drag and drop). All relevant database fields can be selected easily and restricted using a wide range of filters. In addition, just by pressing a button lists pre-defined by Queries that have been defined once can be stored and reused.



The reportgenerator for database queries and analyses

The results can either be printed out or stored in ASCII format.

Requirement

WinCan module:	WinCan Entry v8
	WinCan Reportgenerator

Module 9 WinCanText

Word processing functions similar to Microsoft Office are integrated in WinCan. Unlimited assignment of text documents to individual sewer pipe sections, inspections and manhole reports. It also allows images to be inserted. Once documents have been produced, they can also be stored as templates and reused.

Requirement

WinCan module:	WinCan Entry v8
	WinCanText

Module 10 WinCanDraw

WinCan Draw allows an unlimited number of drawings to be produced for the individual sewer pipe sections, inspections and manhole reports. It is thus the ideal addition for comprehensive documentation of sewer and manhole surveys. The inflows and outflows recorded can also be transferred into the drawing area through a simple "drag-and-drop" procedure in conjunction with a manhole report.

WinCan Draw offers the following features:

- Provision of several graphics objects such as lines, shapes, text, connections and dimension lines
- Selection, moving, change of sizes, rotating, change of object attributes (color, line styles, filler pattern, text and alignment, etc.)
- Reversing and repeating changes
- Grouping and ungrouping elements
- Copying and inserting elements
- Changing the level assignment of objects
- Drag and drop from the Windows Explorer
- Importing of existing graphics files in different formats, e.g. Metafile (WMF or EMF), Bitmap (BMP), compressed graphics format (JPG or PNG)
- Extension with an adaptable symbol toolbar

Result

Vector graphics in the Windows Metafile Format (WMF).

Requirement

WinCan module:	WinCan Entry v8
	WinCan Draw

Module 11 WinCan DMS

This module allows an unlimited number of very different externally produced documents to be assigned to an individual project, sewer pipe sections, inspections and manhole reports. The program also has an integrated viewing program such as Word and Excel documents in Windows as well as the JPG, TIF, BMP, WMF image and hundreds of popular Engineering and Business document formats.

Requirement

WinCan module:	WinCan Entry v8
	WinCan DMS

Module 12 Borehole Inspection

Currently being prepared

Special entry fields, observation catalogs and menus adapted for borehole inspections.

Requirement

WinCan module:	WinCan Entry v8
	WinCan borehole inspection

Module 13 Export / Import

The following formats are currently available for export and import:

ASCII, ISYBAU 96, ISYBAU 2001, TV Kandis 4.0, SUF.

The following Export / Import are in preparation:

KIS, APS, KANKAT, Ingrada, Examiner.

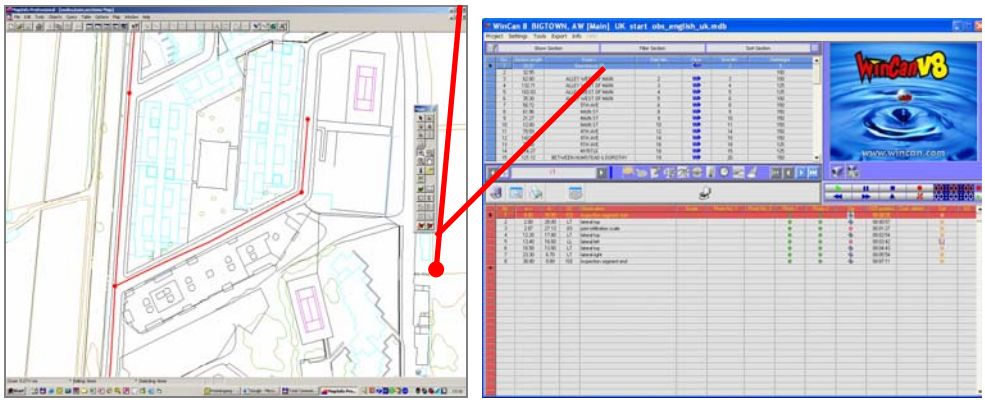
Requirement

WinCan module:	WinCan Entry v8
	WinCan languages
	WinCan Export/Import

Module 14 WinCanGis/Query

This option allows GIS users to access WinCan data via their usual GIS user interface with the click of a mouse. WinCanGIS/Query is an interactive instrument for queries in the office environment.

It supplies the object number of the selected sewer pipe section or manhole to the WinCan database, which then goes to the relevant point immediately and highlights it. The user now has the option of viewing videos, images and descent results in the WinCan user interface.



The link to the appropriate GIS software is achieved seamlessly using a button on the toolbar.

WinCanGIS/Query is available for the following GIS systems and application components: ArcView 3.x, ArcGIS 8.x, 9.x, GE Smallworld version 4, MapInfo 5.5-8, GeoNIS. Upon request, we can also provide you with a customized solution for other application components.

Requirement

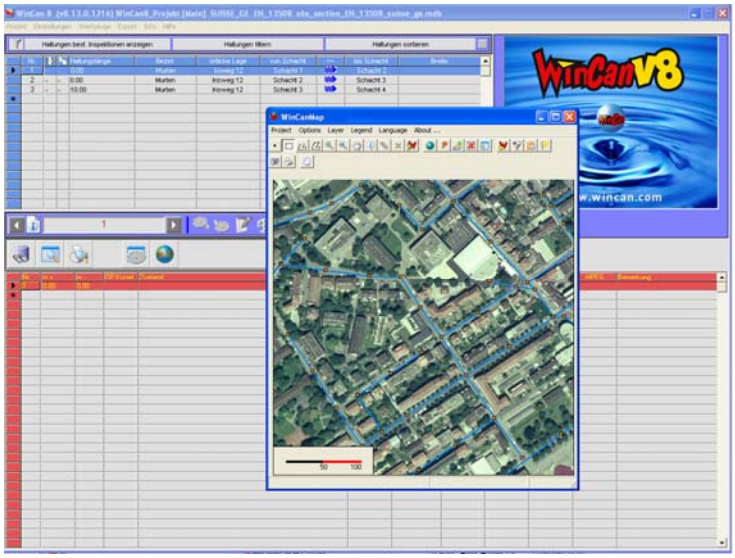
WinCan module:	WinCan Entry v8
	WinCanGIS/Query
	Existing GIS-System

Module 15 WinCanMap

Transfer of Map Viewer Data to WinCan

WinCanMap is a module to display sewer pipe sections and manholes on a map interface and to transfer the GIS data automatically to a WinCan database.

This relates to data on the sewer pipe section header such as the diameter, manhole designations, sewer pipe section lengths, etc. The operator has therefore saved time-consuming typing work and it also rules out the risk of errors being introduced as the data is transferred.



WinCanMap and WinCan working together

The connection between WinCan and WinCanMap is bi-directional: At the press of the button the sewer pipe sections and manholes entered in WinCan on the map interface can be displayed in color according to their status, e.g. all objects already inspected in green, all foul water pipes in yellow and so on.

WinCanMap can also be used as a navigation aid so that the precise location of a sewer pipe section can be displayed on the map.

WinCanMap is also ideal for office use. Thus survey jobs can be assigned to the various vehicles directly by WinCan. Current progress of the work can be shown in color so that the project manager can always monitor the current project status.

Digitally recorded video films (see WinCanMPEG module) can be operated directly from the map interface. By clicking on the appropriate sewer pipe section position you go to the appropriate point in the film. Conversely, when the film is running a moving symbol indicates the current point in the film on the sewer pipe section.

Requirement

WinCan module:	WinCan Entry v8
	WinCanMap

Module 16 WinCanProjectManager

Keep an overview thanks to MetaDB

The MetaDB (Meta database) is a higher-order WinCan database. It is filled with information from the individual WinCan projects, some of which has been accumulated over many years.

This cross-project data is then available to the users and allows them to access the original data quickly.

WinCan ProjectManager offers a user-friendly interface for this, and numerous filters allow it to be narrowed down more precisely. The program finds your data, irrespective of whether it is in a network, on CD, DVD jukeboxes or other external data media.

The WinCan projects themselves can be opened in WinCan, where all advantages of WinCan in respect of data processing, analysis and printing can be used.

Result

A higher-order WinCan database with information on the individual WinCan projects.

Requirement

WinCan module:	WinCan Entry v8
	WinCan ProjectManager

Module 17 VCR control

Video recorder control console

Integrated search function and automatic time code transfer

Requirement

WinCan module: WinCan Entry v8
WinCan VCR control

All equipment with an RS-232 port is supported. Currently these are:

- JVC SRS-388 E/U
- Panasonic AG-7350
- Panasonic AG-7355
- Panasonic MD830

Module 18 Real-time MPEG 1/2/4 recording

MPEG is a standard for recording and digitizing video data (with/without audio). The advantages of MPEG video clips are that they offer good compression compared to other video formats, thus ensuring that they can be kept relatively small.

Digital video clips are generated with the WinCan MPEG option and incorporated in WinCan projects. The recording is made in real time. The powerful hardware supplied ensures that you can continue to work with the computer because the sophisticated compression is carried out entirely as a background operation. Here the video data is thus written to the hard disk.

WinCan creates what is termed an index file as the observations are being recorded. This links each position where damage is present to a certain point in the film with complete accuracy. Therefore, it just needs the click of the mouse for the person reviewing the data to go to a point in the file - with no time-consuming winding and waiting.

WinCan v8 supports MPEG-1/2/4 formats.

Result

Video clips incorporated in WinCan, which can be viewed directly in WinCan or using the Windows MediaPlayer. Afterwards a file is created for direct positioning of the video clip.

Requirements

WinCan module:	WinCan Entry v8 WinCan real-time MPEG 1/2/4 recording
Hardware	Free PCI card slot, MPEG video digitization card

Module 19 Software Encoding

Allows digital video compression on a notebook using WinCan-licensed software coders.

Result

Video clips incorporated in WinCan, which can be viewed directly in WinCan or using the Windows MediaPlayer. Afterwards a file is created for direct positioning of the video clip.

Requirements

WinCan module: WinCan Entry v8
WinCan Software encoding

Supported Video Hardware

Manufacture	Type
ATI (Asus)	AX800: ATI Rage Theater Video
AverMedia	AVerTV USB2.0
Canopus	ADVC
Canopus	ADVC55
ImagingSource	DFG/1394-1
MSI(Nvidia)	GeForce FX 5950 Ultra
MSI(Nvidia)	NX6600-VTD256
Pinnacle	PCTV MediaCenter 100e
Pinnacle	PCTV Analog Pro USB
Matrox	Marvel e450TV

Module 20 WinCanAutoMPEG

WinCan AutoMPEG can digitize the content of existing video cassettes automatically (create MPEG video clips). The basis for this is existing WinCan databases or databases created by importing data afterwards from, say, ISYBAU files.

The damaged points recorded in the project and time code information ensure that points on the video cassette can be selected with pinpoint accuracy. All sewer pipe sections are digitized in an MPEG film and the individual damaged points are linked to the points in the film. This allows certain film positions to be selected directly.

Result

WinCan project with one or several video clips, which can be viewed directly in WinCan or using systems such as the Windows Media Player. An index file is then created that can be used for direct selection of certain positions in the video.

Requirements

WinCan module:	WinCan Entry v8
	WinCanMPEG
	WinCanAutoMPEG
Hardware	Free PCI card slot, MPEG video digitization card
	Video recorder with communications interface supported by WinCan

Existing inspection data in a compatible format.

Service

One of the services we can provide is the digitization of your existing video archive.

Module 21 WinCan JogShuttle software

This module provides very convenient navigation of digital video films. The playing/winding speed can be set accurately using a rotary knob: this procedure is similar to the one used for professional video editing equipment. It is also possible to move forwards and backwards from image to image. Further function buttons provide typical video functions such as starting, stopping, forwards, backwards and pause.

Further function buttons are available: we will use these in future for new functions such as recording images and jumping to the next damaged point.

The software, when used with the associated hardware, allows convenient and targeted evaluation of the recorded digital TV inspection films.

JogShuttle

Requirements

WinCan module:	WinCan Entry v8
	WinCan JogShuttle Software
Hardware:	JogShuttle

Module 22 ODS software (only in combination with WinCan MPEG)

OSD stands for **O**n **S**creen **D**isplay and superimposes graphics and text information over the live video image.

Requirements

WinCan module:	WinCan Entry v8 WinCanMPEG WinCan OSD software
Hardware:	**Vitec**, PCI Free PCI card slot, MPEG video digitization card with OSD Output

Module 23 OSD control

Image overlay

WinCan overlays all relevant and currently configurable information on sewer pipe sections and damage in the running camera picture.

Requirement

WinCan module: WinCan Entry v8
WinCan OSD Control

Supported overlay:

Manufacturer	Type
Aries	
Angi	
Hydrovideo	
Hytec	VR55
IBAK	EDE 42/49
IBAK	EDE 69
IBAK	EDE 79
IPEK	DE03SW
JT	SG93
JT	SGKST
Pearpoint	P320
PS	SVC1
PS	SVC2
Spering	MCDE
Visatec	WKI
Optimess	
WinCan USB	

Module 24 Inclination measurement

Manual or automatic entry of inclination data.

Requirements

WinCan module: WinCan Entry v8
WinCan OSD control
WinCan inclination measurement

Inclination sensor on the camera system and communication using WinCan

Module 25 Temperature measurement

Currently being prepared

Manual or automatic entry of temperature data.

Requirements

WinCan module:	WinCan Entry v8
	WinCan OSD control
	WinCan Temperature measurement

Temperature sensor on the camera system and communication using WinCan

Module 26 Crack width and deformation measurement

Crack width measurement with lasers

Requirements

WinCan module: WinCan Entry v8
WinCan crack width and deformation measurement

Crack width measurement without lasers

Requirements

WinCan module: WinCan Entry v8
WinCan crack width and deformation measurement
A reference file of the relevant camera

Deformation measurement

Recording with the help of 2 reference circles positioned over a pipe connection. Result in mm and in percent

Requirement

WinCan module: WinCan Entry v8
WinCan crack width and deformation measurement

Module 27 USB2 – WinCan MobileCap 124 Video Capture (MPEG 1/2/4)

The MobileCap 124 is a newly developed real time USB2 hardware video compressor specially designed with WinCan Portable in mind. The unit is able to display live video in WinCan, capture still images and simultaneously encode video in MPEG1/2/4 formats.
No external power is required making the unit truly portable.

Video Integration MobileCap 124

- USB2 Composite/S-VHS
- Audio
- Host Powered
- Live-Video-Display
- Still Image Capture
- MPEG 1/2/4 Hardware-Compression

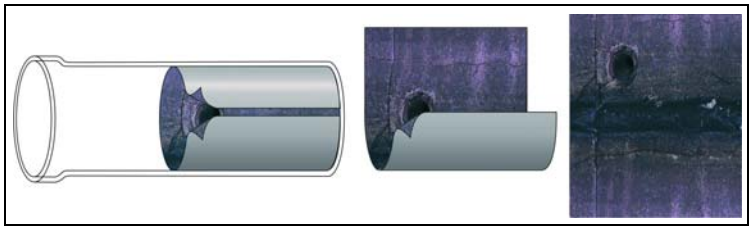
Requirement

WinCan module:	WinCan Entry v8
	USB2-WinCan MobileCap 124 Video capture

Not compatible with DigiSewer!

Module 28 DigiSewer

The ***WinCan DigiSewer*** application is a standalone application that supports exclusively the DigiSewer fish eye camera module from ***IPEK (Envirosight in USA)***. The DigiSewer application creates the scan images during the inspection that show the inner surface of the inspected pipe as if you would unfold the pipe into a two-dimensional image:

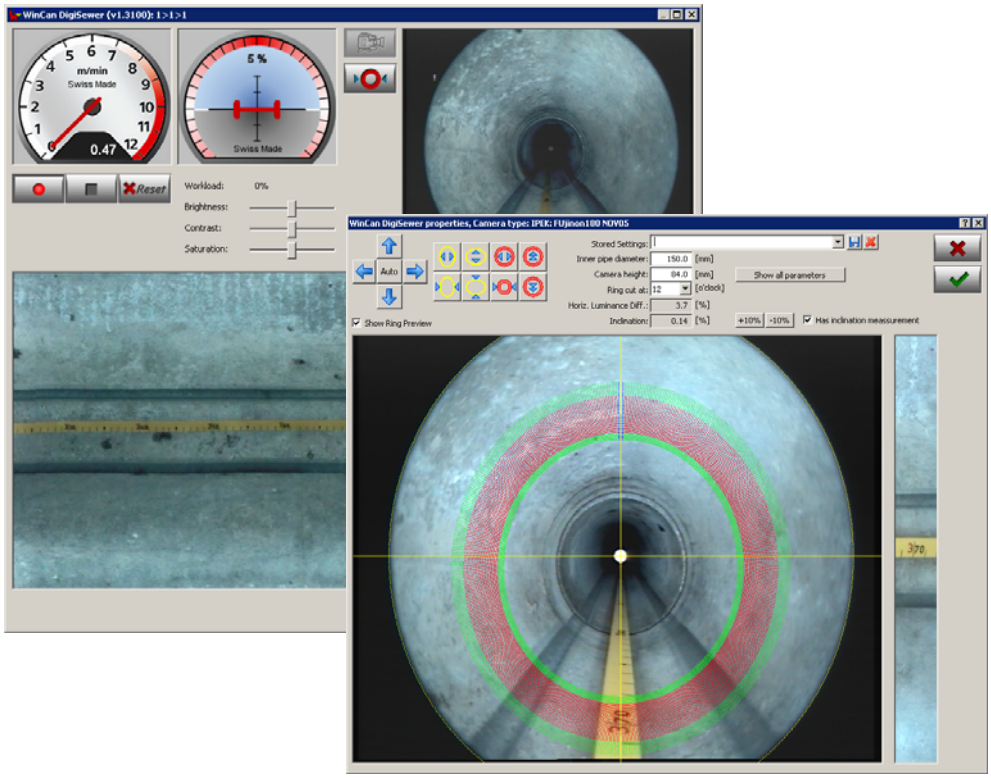


DigiSewer Features:

- Creates high quality sidescan images without any stripe patterns. The resolution is up to 1500 pixels per revolution.
- Every 5 - 10 cm a front view picture is stored.
- Allows fast scan speed up to 15 meters per minute.
- Allows altering the drive speed during the inspection.
- Inclination data collection during the scan.
- Easy camera parameter setup with inner pipe diameter and camera height.
- Low data storage requirements (ca. 1 MB per meter).

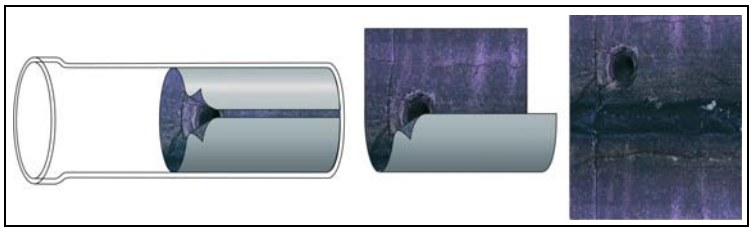
Requirements:

- DigiSewer fish eye camera.
- Realtime Vitec video capture board.
- WinCan ScanExplorer module for later viewing and documentation.



Module 29 Scan Explorer

The WinCan ScanExplorer lets you view and manage sidescans. Scanner applications such as ***DigiSewer***, ***Rico RPP*** or ***IBAK Panoramo*** produce side scans from the inner surface of the inspected pipe as if you would unfold the pipe into a two-dimensional image:



ScanExplorer Features:

- Different, synchronized views: Detailed side scan, overview w. sidescan minification, front view and a section view.
- Easy and fast navigation through the pipe.
- Inclination and altitude charts.
- Precision measuring tools: 2D on sidescan, 3D in pipe space on cross-section plane.
- Graphic Drawing on sidescans and in frontview.
- Seamlessly integrated in WinCan: Graphics can be linked to WinCan observations.
- Automatic detection for joints and laterals.
- Compatible with:
  - ***DigiSewer*** scanner (Module ***WinCan DigiSewer***)
  - ***Rico RPP*** scanner (Module ***WinCan RPP***)
  - ***IBAK Panoramo*** scanner (Module ***WinCan Panoramo***).